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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/328,183	06/08/99	PARISH IV	O	27889-00037

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EXAMINER	
ATKINSON,C	
ART UNIT	**PAPER NUMBER**
3743	12

DATE MAILED: 11/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/328,183	Parish et al.
Examiner	**Group Art Unit**
Atkinson	3743

—The MAILING DATE of this communication appears on the cover sheet beneath the c rrespondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☑ Responsive to communication(s) filed on 8/21/2000.

☑ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disp sition of Claims

☑ Claim(s) 1-21 is/are pending in the application.

Of the above claim(s) 14-20 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☑ Claim(s) 1-13 and 21 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☑ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 and 6

☐ Interview Summary, PTO-413

☑ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing R vi w, PTO-948

☐ Oth r _____

Office Acti n Summary

Response to Election and Amendment

Applicant's election of species A as illustrated in Figure 1 in Paper No. 11 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 5, 7 and 12-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 11. Claims 5, 7 and 12-13 do not read on the elected species but rather on non-elected species B.

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1-3, 6, 8-11 and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Fox et al. in view of Hamilton et al.('037).

The patent of Fox et al. in Figures 1-6 discloses all the claimed features of the invention with the exception of the channels being micro-channels and inlet and outlet end caps. Regarding "a low profile" a change in size is generally recognized as being within the level of ordinary skill in the art since such a modification would have involved a mere change in the size of a component. *In re Rose*, 105 USPQ 237 (CCPA 1955). Offical Method of manufacturing limitations (i.e. molding, extruding, etc.) are not given any patentable weight in an apparatus claim.

The patent of Hamilton et al.('037). in Figures 12-13 discloses a heat exchanger having a plurality of micro-channels and inlet and outlet end caps for the purpose of increasing the heat transfer rate away from an electronic device and increasing the heat transfer efficiency of the heat exchanger. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Fox et al. the heat exchanger having a plurality of micro-channels and inlet and outlet end caps for the purpose of increasing the heat transfer rate away from an electronic device and increasing the heat transfer efficiency of the heat exchanger as

disclosed in Hamilton et al.('037).

Claim 4 is rejected under 35 U.S.C. § 103 as being unpatentable over Fox et al. in view of Hamilton et al.('037). as applied to claims 1-3, 6, 8-11 and 21 above, and further in view of applicant's omission of known/convention prior art.

The patent of Fox et al. as modified, discloses all the claimed features of the invention with the exception of a second plated metal.

Applicant's omission of known/convention prior art in his specification on page 7 discloses that it is known to have a second material between the heat exchanger and the component for the purpose of reducing thermal resistances and attaching the component to the heat exchanger. The material being metal is considered to be an obvious design expedient. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Fox et al. as modified, a second material between the heat exchanger and the component for the purpose of reducing thermal resistances and attaching the component to the heat exchanger as known by applicant's omission of known/convention prior art.

Response to Arguments

Regarding applicant's concerns in his **REMARKS** section of Paper No. 11. filed 8/21/2000, the device of the combination of Fox et al. and Hamilton et al. is believed to meet applicant's claimed invention. Also, method of manufacturing limitations (i.e. molding, extruding, etc.) are not given any patentable weight in an apparatus claim.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.

C.A.
November 6, 2000

CHRISTOPHER ATKINSON
PRIMARY EXAMINER